FEB description and normal settings

Updated:
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Section	Subsection	Range of Operation	Soudan Configuration			Test Facility parameters	Operational notes
			Initiation	Begin Data taking	Periodically		
QET					Pause data, flash LED, resume data		
	Bias	-5 to +5V/10.2k, -.5mA to +.5mA	120uA(typically +/- 80uA)				Disconnected when heater pulse active
	Heater Pulse	5V/5k, 1mA, 100mSec pulse	off				Enabled every
	Ext test	user inputted signal	off				Used during testing, frequency and type wave
Squid							
Front End							
Av = 20	Squid Bias	-5 to +5V/20k, +/- 0-250uA	85uA (typical: +/- 20uA)				
	Zap Pulse	-5 to +5V, 2 Sec Pulse	0V				Enabled every
	Lockpoint	0 to 5V	2mA (+/- 0.5mV)				counters squid bias effect on first stage amplification
Av = .2-5	Vary Amp	Av = 0 - 5					
Squid Feedback							The Integrator circuit provides the feedback to the squid. If the non-integrated signal is selected there is no feedback.
Integrator			UnlockSquid/ lock squid	UnlockSquid/ lock squid	Unlock Squid after LED flashing lock		
	Integrator	LP filter: 2.4kHz, Av = 70	open feedback/close fb				
	Summer	Adds External test signal to Integrator output					
	External Test	user inputted signal					Becomes part of the feedback circuit
	Polarity	Noninverting or Inverting on Intergrator output					
	Monitor	selects Integrated or non-integrated signal before the final stage of amplification in the Driver section.	squid Sig Mon/fb mon				
Driver		Gains of +/- 1, 1.43, 2, 5, 10, 14.3, 20, 50	20 (10, 50)				
Av = 1 to 50			Offset = 0V				
			Autozero				
LED	2 outputs	-5 to +5V, 11uSec to 1.32mSec pulses	led bias = 200uA(100-5000uA)	led bias = 0A	Run flashing sequence		
			Multi pulse mode				
			pulse width ~500uS (+/- 1mS)				
			rep rate ~3mS (+/- 10mS)				
			fire LED, wait 0.025Min				
			Turn off, LED Bias = 0V				
Fet Heater		5 V 30 sec pulse, 7.5mA. Activated at the initial start up of the board before the circuit powers are turned on. Can be turned on for an additional 30 seconds.					
	Fet Temp	output of temp line from detector, connected to Fet Heater -					
Q Bias		-5 to +5V	0V	(+/-) 3 - 6 V	0V, flash LED, reset Bias		
Qamp		2 channels, jfet driver		Driver Gain = 10, autozero			
Av=11							
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